

TO: Vermont Mental Health Performance Indicator Project
Advisory Group and Interested Parties

FROM: John Pandiani, Lucille Schacht, and Bill Bagdon

DATE: March 12, 1999

RE: Hospitalization Outcomes for Adult Outpatient and CRT programs

The Performance Indicator Advisory Group's draft recommendation regarding indicators of treatment outcomes included measures of hospitalization for behavioral health care after treatment. The group also recommended that, whenever possible, performance on outcome indicators should be compared to the same indicators prior to treatment. Indicators should also be calculated for the general population for purposes of comparison with people who receive services and that the indicators be presented for the most recent year and historically to the extent that the data are available. This week's report includes adjustments of raw outcome measures based on previous history and rates are compared to the general population. In this presentation, however, data are only presented for one year. Readers should consider that this one year might not be representative of the current pattern of program performance.

On average, 20% of the people who received services from Community Rehabilitation and Treatment programs during 1995 were hospitalized for behavioral health care during 1996. (Only 0.7% of adult residents of the State of Vermont were hospitalized for behavioral health care during 1996.) When rates of hospitalization subsequent to this treatment year were compared to rates of hospitalization prior to this treatment year, the results are encouraging. At five CRT programs, patients were significantly less likely to be hospitalized after treatment than before treatment. There was more hospitalization after treatment than before treatment at only one program.

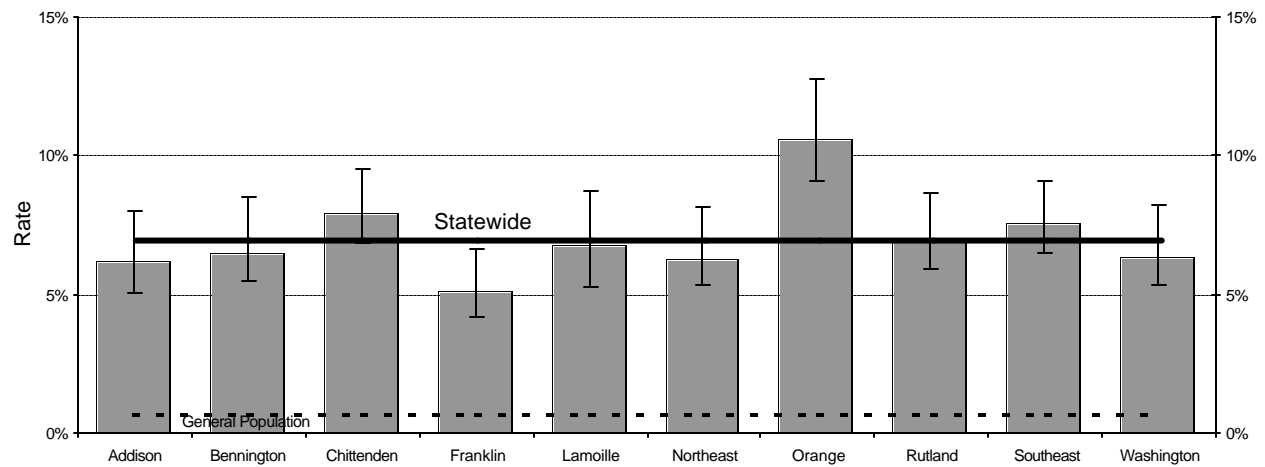
On average, 7% of the people who received services from Adult Mental Health Outpatient programs during 1995 were hospitalized for behavioral health care during 1996. When rates of hospitalization subsequent to this treatment year were compared to rates of hospitalization prior to this treatment year, the results are not positive. At three Adult Outpatient programs, patients were significantly more likely to be hospitalized after treatment than before treatment. A trend toward less hospitalization was not evident at any of the Adult Outpatient programs.

The attached graphs present the hospitalization rates for 1996 and the adjusted rate based on prior hospitalizations. We have used a new presentation format for the adjusted rate. The upper half of this graph indicates an agency had more clients with hospitalizations after the treatment year than before the treatment year. The lower half of this graph indicates an agency had fewer clients with hospitalizations after the treatment year than before the treatment year. When the 95% confidence interval overlaps with the middle line, no change is indicated in the proportion of clients with post-hospitalizations compared to prior hospitalizations. We will appreciate your comments about the readability of this presentation of adjusted outcome rates.

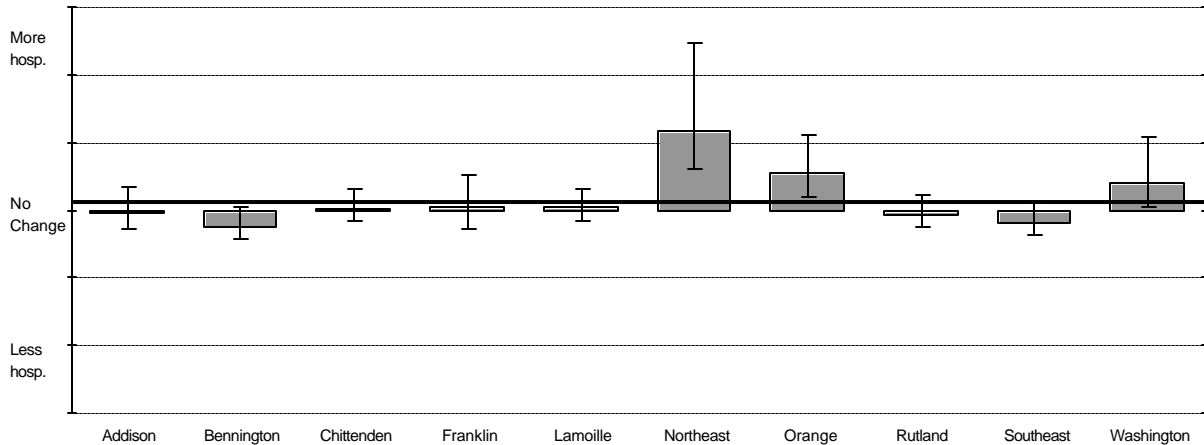
We look forward to your comments and questions at 802-241-2638 or jpandiani@ddmhs.state.vt.us.

ADULT OUTPATIENT PROGRAMS

1996 HOSPITALIZATION RATE



ADJUSTED FOR PRIOR HOSPITALIZATION RATE

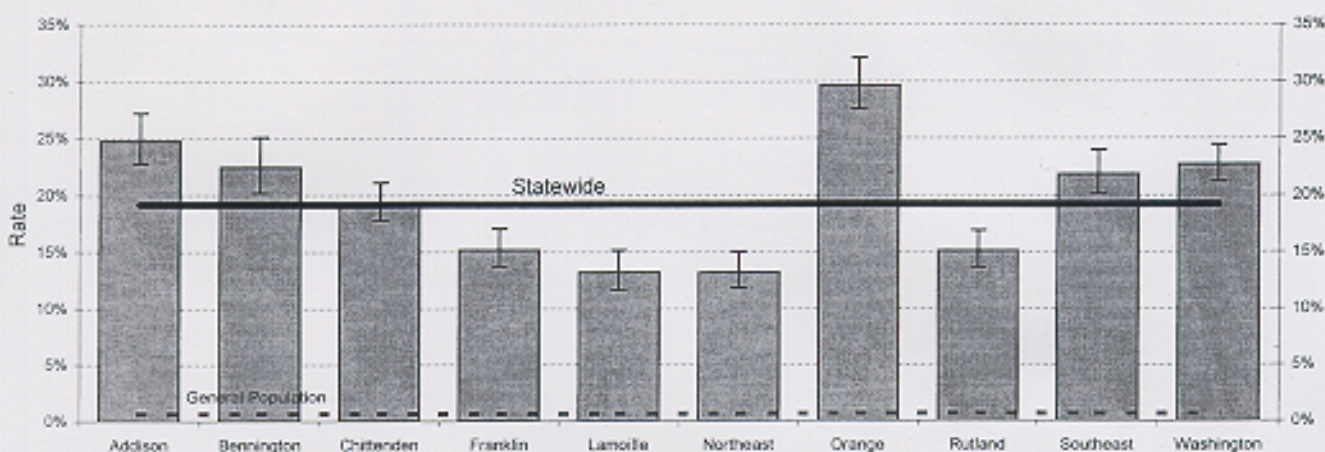


Region/Provider	Total Clients Served During 1995	Hospitalization		
		1994 (before) Percent (95% C.I.)	1996 (after) Percent (95% C.I.)	Ratio (95% C.I.)
Addison - CSAC	647	6.5% (5.3%-8.4%)	6.2% (5.1%-8.0%)	0.95 (0.71 - 1.34)
Bennington - UCS	539	8.0% (6.8%-9.8%)	6.5% (5.5%-8.5%)	0.81 (0.64 - 1.12)
Chittenden - HCHS	1319	7.7% (6.8%-9.3%)	7.9% (6.8%-9.5%)	1.02 (0.84 - 1.32)
Franklin - FGI	856	6.7% (5.8%-8.4%)	5.1% (4.2%-6.6%)	0.76 (0.58 - 1.05)
Lamoille - LCMHS	169	6.5% (4.9%-8.6%)	6.8% (5.2%-8.7%)	1.05 (0.71 - 1.51)
Northeast - NEK	776	2.9% (2.3%-4.5%)	6.3% (5.3%-8.1%)	2.16 (1.61 - 3.46)
Orange - CMC	229	6.9% (5.7%-8.9%)	10.6% (9.1%-12.7%)	1.54 (1.20 - 2.10)
Rutland - RACS	817	7.5% (6.5%-9.1%)	7.0% (5.9%-8.7%)	0.94 (0.75 - 1.23)
Southeast - HCRSSV	1610	7.4% (6.4%-8.8%)	7.6% (6.5%-9.1%)	1.03 (0.84 - 1.32)
Washington - WCMHS	654	4.5% (3.6%-6.3%)	6.3% (5.3%-8.2%)	1.39 (1.04 - 2.08)
Statewide	7,616	6.6% (6.3%-7.2%)	6.9% (6.6%-7.5%)	1.05 (0.97 - 1.18)

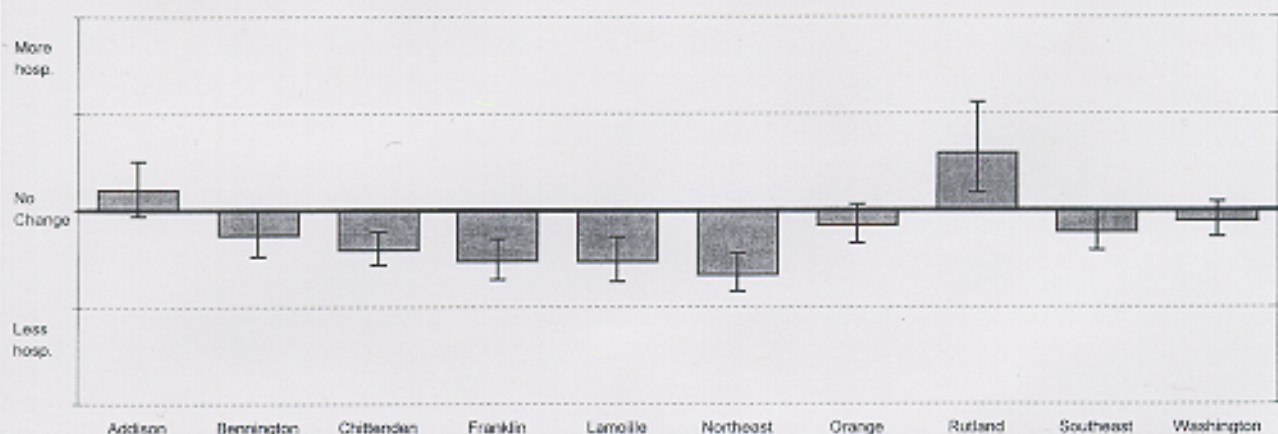
Information is based on quarterly service reports submitted by Vermont community service providers and includes people assigned to the Adult Outpatient Program. Hospitalizations include episodes of inpatient behavioral health care based on the Hospital Discharge Data Set. Estimates of the number of people hospitalized (and 95% Confidence Intervals) are based on Probabilistic Population Estimation. When a confidence level for the ratio includes '1', the adjusted outcome ratio indicates no change. When the interval does not include '1', there is a statistically significant change between prior and subsequent hospitalization rates. The hospitalization rate for the adult general population is 0.66%.

COMMUNITY REHABILITATION AND TREATMENT PROGRAMS HOSPITALIZATION OUTCOMES, SERVED DURING 1995

1996 HOSPITALIZATION RATE



ADJUSTED FOR PRIOR HOSPITALIZATION RATE



Region/Provider	Total Clients Served During 1995	Hospitalization		
		1994 (before) Percent (95% C.I.)	1996 (after) Percent (95% C.I.)	Ratio (95% C.I.)
Addison - CSAC	142	22.5% (20.4%-24.6%)	24.8% (22.8%-27.2%)	1.10 (0.97 - 1.25)
Bennington - UCS	229	25.8% (23.9%-28.2%)	22.5% (20.2%-25.1%)	0.87 (0.76 - 0.99)
Chittenden - HCHS	616	24.3% (22.7%-26.1%)	19.3% (17.8%-21.1%)	0.79 (0.72 - 0.89)
Franklin - FGI	217	20.6% (18.9%-22.6%)	15.2% (13.7%-17.1%)	0.74 (0.64 - 0.85)
Lamoille - LCMHS	132	18.0% (16.6%-19.7%)	13.2% (11.6%-15.2%)	0.73 (0.63 - 0.86)
Northeast - NEK	485	19.8% (18.3%-21.7%)	13.2% (11.8%-15.0%)	0.66 (0.58 - 0.78)
Orange - CMC	112	32.1% (29.7%-34.7%)	29.6% (27.5%-32.1%)	0.92 (0.83 - 1.03)
Rutland - RACS	304	11.7% (10.2%-13.7%)	15.1% (13.7%-16.9%)	1.29 (1.09 - 1.56)
Southeast - HCRSSV	378	24.6% (22.8%-26.9%)	21.8% (20.1%-24.0%)	0.89 (0.79 - 1.01)
Washington - WCMHS	594	24.0% (22.6%-25.7%)	22.7% (21.2%-24.4%)	0.94 (0.86 - 1.04)
Statewide	3,209	22.2% (21.6%-22.8%)	19.2% (18.6%-19.8%)	0.86 (0.83 - 0.91)

Information is based on quarterly service reports submitted by Vermont community service providers and includes people assigned to the Community Rehabilitation and Treatment Program. Hospitalizations include episodes of inpatient behavioral health care based on the Hospital Discharge Data Set. Estimates of the number of people hospitalized (and 95% Confidence Intervals) are based on Probabilistic Population Estimation. When a confidence level for the ratio includes '1', the adjusted outcome ratio indicates no change. When the interval does not include '1', there is a statistically significant change between prior and subsequent hospitalization rates. The hospitalization rate for the adult general population is 0.66%.